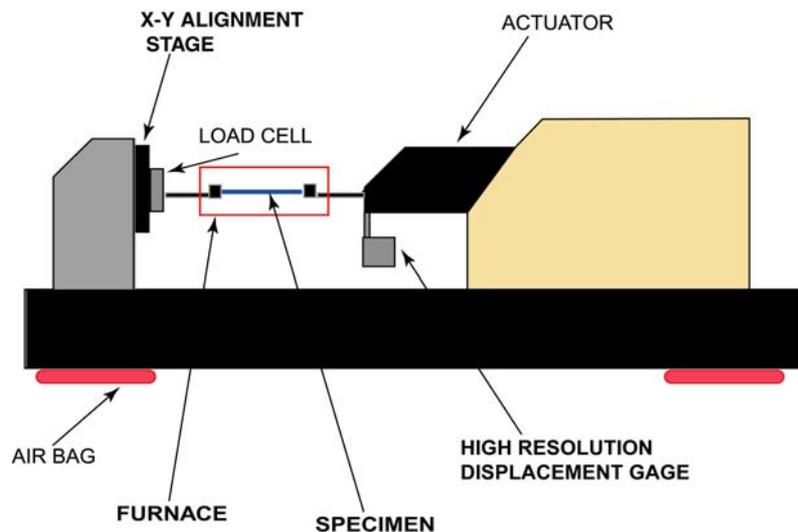


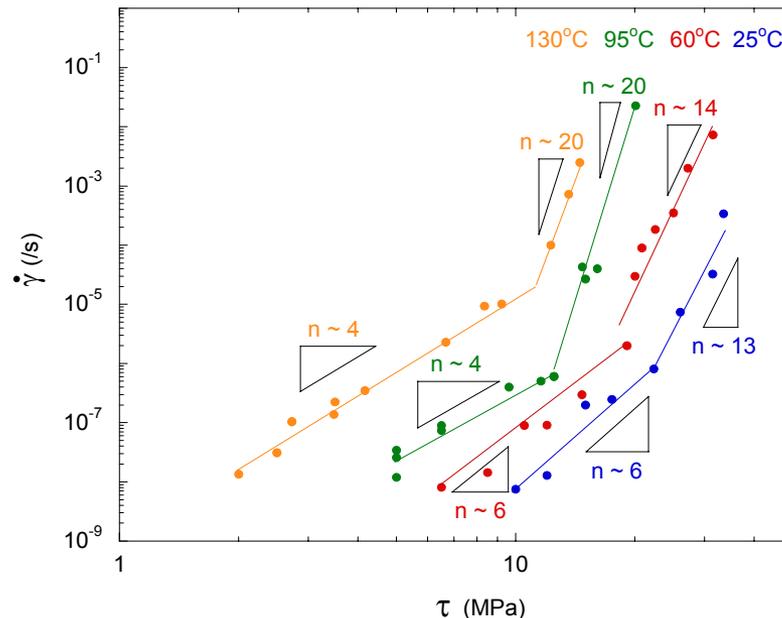
Creep Deformation Behavior of SnAg/Cu Solder Joints

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Sn-rich solder alloys are gaining wide acceptance as replacements for Pb-Sn solders in electronic packaging because of the increased health concerns over the toxicity of Pb. Fundamental studies of these alloys at the small length scales appropriate to application are required for screening potential replacements, modeling, and finally implementation in the electronic package.



Micromechanical testing system used to test 1 mm diameter solder spheres used in electronic packaging application. The high sensitivity in applied loads and measurable displacement make this research tool unique.



Creep data generated in this study is being used to obtain a mechanistic understanding of solder behavior with a goal to implementing these solders in application.